No change has been made in the method of treatment, which, as we have already remarked, seems to us wanting in fulness and to miss a great opportunity for suggestive generalizations. Perchance Capt. Reid may be induced to give us a general summary on the study of oology in the last volume. Nowhere is the need for such a summary so well exemplified as in the case of the treatment of the eggs of the Common Cuckoo.

This volume is illustrated by ten coloured plates, remarkable for their extreme beauty. The selection of the figures has obviously been most carefully made.

The Geological Structure of Monzoni and Fassa. By Marie M. Ogilvie Gordon, D.Sc., Ph.D. 1902–03 [1903]. 8vo. 180 pages, with 14 photographs, 33 figures, 4 geological sections (black and white), 8 geological sections (coloured), 1 table of stratigraphical succession, 1 coloured geological map, and 1 reference contour and fault map. Edinburgh: Turnbull and Speers. London: Simpkin, Marshall, & Co.

This memoir is a "Special Part" of Vol. viii. of the 'Transactions of the Edinburgh Geological Society,' published in 1903. The date of "1902" on the titlepage refers to the year when it was *read* before the Royal Society, as stated in the *Prefatory Note*. According to the generally accepted bibliographical and nomenclatorial rules only the date of *publication* can be taken for the chronological status of a book. An abstract having been printed elsewhere, the Royal Society, by its rules, could not itself print the paper.

The Alpine Range, as a whole, is well known as a region that has been subjected to repeated movements; and, indeed, it cannot be positively said that the cracks in the rocks and their displacements are even now in a state of absolute equilibrium. In the South Tyrol the elevated areas of Triassic strata, rugged and precipitous, are characterized by more or less isolated, rudely columnar or sharply peaked mountains, which have long been objects of wonder to the tourist and of study to the Geologist. To the former it has attractions in its picturesque aspects; but, if his reflections reach farther and deeper than the common notions of mystery and romance among the bizarre cliffs, peaks, and gorges, he may well desire to know the "why and wherefore" of their real history and outcome. This country has for a long time been carefully examined by many Continental Geologists, to whose published observations and descriptions Miss Ogilvie (afterwards Mrs. Ogilvie Gordon) has referred in several papers. Attention had, however, been especially drawn to the fossils of Saint Cassian &c. Difficulties, however, were found in determining the relationships of the strata and the fossils. Of late years the lady-student above mentioned directed her energies to the elucidation of the doubts and difficulties which seemed hitherto to be beyond solution. Aided and guided especially by the advice of Baron von Richthofen among her Continental and of

Professor Lapworth among her British friends, Mrs. Ogilvie Gordon, D.Sc., Ph.D., entered more fully into her projected work in the Tyrol. After hard field-work, making important contributions to our knowledge of Alpine Geology, both as to the arrangement of strata and the occurrence of fossils, she completed in 1901 the excellent geological map which accompanies the paper before us. This brilliant and solid geological work has been steadily continued and improved by the same lady, as shown by her contributions to scientific periodicals *, with elaborate and trustworthy descriptions of the region in explanation of its complex structure.

In these researches Dr. Ogilvie Gordon has always kept in touch with the Continental Geologists working at the same problems.

The Triassic masses in this region consist largely of Dolomites; and these are said by the Author to be isolated by faults. Folded by many successive creeping movements of the Earth's crust, intersected by slip-faults and thrust-faults, they have also suffered much by local subsidences, and by repeated cross-faultings, with shear-planes and their crush-breccias.

The outlines of the mountains in some places have been likened to that of upraised coral-reefs; and, if really such, the dolomite condition would not be strange, for it is known that corals become dolomitized. Careful scrutiny, however, detects fossiliferous stratification in some of the dolomite masses, but whether due to shells or to beds (not reefs) of Coral on bases of calciferous Algals is not settled.

Both volcanic and deep-seated igneous rock-matter play important parts in the make-up and physical character of the country. The igneous magma has come up to the fissures of weakness in the various rocks, either to spread out on the top or to lose itself in the cross-cracks or in the side-planes and cleavage-lines. They take the Geologist far afield in his science in finding and explaining the origin, material, age, and mode of passage of the different veins, dykes, and sills. Some of the intrusions appear to have been of an age previous to the Triassic, some to have been contemporaneous with it, and some decidedly to be of later (Tertiary) date.

The following is given in a Table opposite page 19, in this "Special Part" of vol. viii. Trans. Geol. Soc. Edinburgh [1903], as the succession of the Triassic formations in the South Tyrol:—

Upper Trias. About 370 mètres, in the vicinity of Fassa.	Dachstein Limestone or Dolomite.	320 mètres.
	Raibl Marls, &c.	50 mètres.

* Especially the 'Geological Magazine,' 1892, pp. 145, 147, and 381, 382; Quart. Journ. Geol. Soc. vol. xlix. 1893, pp. 1–77; Geol. Mag. 1894, pp. 1-10 and 50-60; Q. J. G. S. vol. lv. 1899, pp. 563-634; Geol. Mag. 1902, pp. 309-317; and, lastly, Trans. Edinb. Geol. Soc. 1903, vol. viii. "Special Part," pp. 1–179.

Middle Trias. About 510 mètres.	Schlern Dolomite or Dolomitic Limestone (including at the base the Clpit Limestone). 350 mètres.	
	Cassian Marls.	60 mètres.
	Wengen Shales, Tuffs, &c.	
	Buchenstein Limestones. 20-40 mètres.	
	Mendola Limestone or Dolomite. 40-60 mètres.	
Lower Trias. About 500 mètres. (maximum).	Passage-beds. Crinoid Limestone, Oolites, and Rauchwackes. 60-90 mètres.	
	Upper Werfen Marls and marly Limestone. *Naticella costata* zone. 100-160 mètres.	
	Blue shales and marls. 35 mètres.	
	Micaceous layers or Rauchwackes. 25 mètres.	
	Lower Werfen. Red and grey marls and shales. *Pseudomonotis Clarai* zone. 130 mètres.	
	Lingula tenuissima zone. 20 mètres.	
	Poikilitic marls and limestone. *Natica gregaria* zone. 40 mètres.	
Permian. About 70 mètres.	*Bellerophon* Limestone, gypsum, &c.	
	Gröden Sandstones, Quartzites, or Breccias.	
	Quartz-porphyry.	

It is indicated also in this Table:—That the Schlern, Cassian, and Wengen beds are equivalent to Salomon's "Marmolite Limestone." That the Mendola limestone and the Passage-beds are equivalent to Salomon's "Alpiner Muschelkalk." That "the Passage-beds are the age-equivalent of the uppermost horizons of the '*Myophoria beds*' or 'Reichenhall Limestone' in the North Tyrol and Bavaria-Roth horizon with salt, gypsum, &c." The Upper Werfen is equivalent to Richthofen's "Campil Strata" and the Lower Werfen to his "Seisser Strata."

The numerous fossils collected by the Author in the field, except the Wengen-Cassian fossils of Sella Pass (pages 26–28) were almost all from the Werfen series, and were identified for her by Dr. Broili, of Munich.

The igneous rocks received great attention from the Author in the field and have been carefully described, from her preparations, by Mr. Gibb, of Aberdeen; and to indicate the important part played by them in nature and described in this Memoir, we may with advantage quote the following from pages 29–30:—

"This paper therefore confirms the conclusion I previously formed when I investigated Enneberg and Buchenstein, viz., that the copious flows of augite-porphyrite, regarded as extrusive were in reality *intrusive*, and had been intruded pre-eminently into fault-planes and lines or horizons of weakness and crust-deformation. The previous investigators of Fassa Valley failed to recognise the presence of the innumerable crush-planes with extremely low hade, and the branch-connection of many of them with leading cross-faults, and consequently overlooked the correlation of the igneous invasions with pre-existent deformational structures.

"As the presence of igneous rock undergoing consolidation amidst the Triassic succession only served to still farther accentuate and concentrate the differential strains at special horizons of the crust, during the Tertiary movements the same crush-zones were again and again the seat of crush-movements, and were invaded afresh by molten material. In the immediate vicinity of the larger igneous masses, the sedimentary deposits tended to subside; thus the local

horizontal crust-strains increased in intensity. During protracted periods of crush and deformation, the earlier intrusions suffered, together with the original thrust-masses and downslip-slices. They were cleaved and faulted, locally altered, sheared or fragmented just as their sedimentary roof and floor. Later dykes and veins ramified in them and in the environing sediments, and the direction of these later dykes often gives valuable evidence of the local horizontal crust-strains associated with continued local subsidences."

And at pages 13–14 of the Introduction it is conclusively stated that

"In the Fassa and Monzoni district there are the same evidences as in the Sella country of cross-folding and cross-thrusting. But now I furnish a mass of new evidence to show how greatly extended in time these movements were, how extremely complex their deformational effects, and how essentially the history of intermittent intercalations of igneous material was knit up with a long history of local subsidences taking place within the Periadriatic region of the Alps and producing effects which inevitably interfered with the movements of Alpine distribution."

MISCELLANEOUS.

A Correction to "Notes on some Medusæ from Japan."

By R. Kirkpatrick, F.Z.S.

In a short paper entitled "Notes on some Medusæ from Japan," published in the 'Annals' for December 1903, I gave an account (p. 616) of a Medusa which I thought belonged to an undescribed genus and species, and to which I applied the names "*Gonomeandrus chrysostephanus*." This Medusa, however, was described and figured by Tilesius in 1818 (Mém. Acad. Sci. St. Pétersbourg, 1818, tom. vi. p. 554, pl. xviii.) under the name *Medusa saltatrix* (from Nagasaki).

Haeckel ('System der Medusen,' Zweiter Nachtrag, p. 636) places Tilesius's species under *Polyorchis*, though he had, in manuscript, referred it to a new genus, *Spirocodon*.

In 1886 Goette (Sitzungsber. Akad. Wiss. Berlin, 1886, xxxix. p. 832) refers this species to the genus *Spirocodon*, Haeckel, and places the latter in a new subfamily, *Spirocodontidæ*, between the subfamilies *Polyorchidæ* and *Berenicidæ* of the family *Cannotidæ*.

I am much indebted to Mr. E. T. Browne for suggesting that the specimen described by me was the *Medusa saltatrix* of Tilesius and for calling my attention to the above-mentioned references to the literature on the subject.

As there has been no figure of *Spirocodon saltatrix* since the "leidliche Abbildung" published by Tilesius in 1818, I trust that the carefully drawn figures of Mr. Highley, published in connexion with my notes, will prove of interest.